REMARKS

In the Official Action mailed on **29 December 2006**, the Examiner reviewed claims 1-42. Claims 1-42 were rejected under 35 U.S.C. §101 because the disclosed invention is inoperative and therefore lacks utility.

Rejections under 35 U.S.C. §102(e) and 35 U.S.C. §103(a)

Claims 1-42 were rejected under 35 U.S.C. §101 because the disclosed invention is inoperative and therefore lacks utility.

Examiner assumes that the limitations in independent claims 1, 15, and 29 suggest that the deletion of the existing node would cause the deletion of the exiting node's next pointer, and subsequently the deletion of the all the nodes following the deleted node.

Applicant respectfully submits that the above assumption would be true if the deleted node were also spliced (i.e. removed) out of the linked list. However, in the instant application when a node is marked as "deleted," the node **remains in the linked list for a certain amount of time**. This is clearly shown in FIG. 2C wherein node 214 is marked as deleted, or "is deleted," but the next pointer of the deleted node is still pointing to the new node 218, and a preceding node 212 is still pointing at the deleted node 214. Hence, in the instant application, a deleted node can remain in the linked list and the deleted node's next pointer remains valid until the deleted node is spliced out of the linked list in a subsequent splicing operation, wherein the next pointer of node 212 is modified and points to new node 218.

Consequently, Applicant has amended independent claims 1, 15, and 29 to clarify that a node remains in the linked list after being marked as deleted. These amendments find support in page 10, lines 4-17, and FIG. 2C and 2D of the instant application. No new matter has been added.

Examiner further points out that independent claims 1, 15, and 29 fail to recite the essential step of having the next pointer of the new node point to another node within the linked list such that the new node is fully integrated into the lined list.

Applicant respectfully submits that while copying a snapshot of the existing node to the new node, one embodiment of the present invention copies all the items from the existing node to the new node, which includes copying the next pointer of the existing node (see page 9, line 2 of the instant application). The copying of the next pointer of the existing node **automatically causes the new node to point to the node immediately following the existing node**, and hence integrates the new node into the linked list (see FIG. 2B of the instant application).

Accordingly, Applicant has amended independent claims 1, 15, and 29 to include the limitation that "copying a snapshot of the existing node to the new node includes copying a next pointer of the existing node to the new node, so that the new node points to a node immediately following the existing node." These amendments find support in page 9, line 2 and FIG. 2B of the instant application. No new matter has been added.

Hence, Applicant respectfully submits that independent claims 1, 15, and 29 as presently amended to become fully operative and useful, and therefore overcome the rejection. Applicant also submits that claims 2-14, which depend upon claim 1, claims 16-28, which depend upon claim 15, and claims 30-42, which depend upon claim 29, are for the same reasons in condition for allowance and for reasons of the unique combinations recited in such claims.

CONCLUSION

It is submitted that the present application is presently in form for allowance. Such action is respectfully requested.

Respectfully submitted,

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